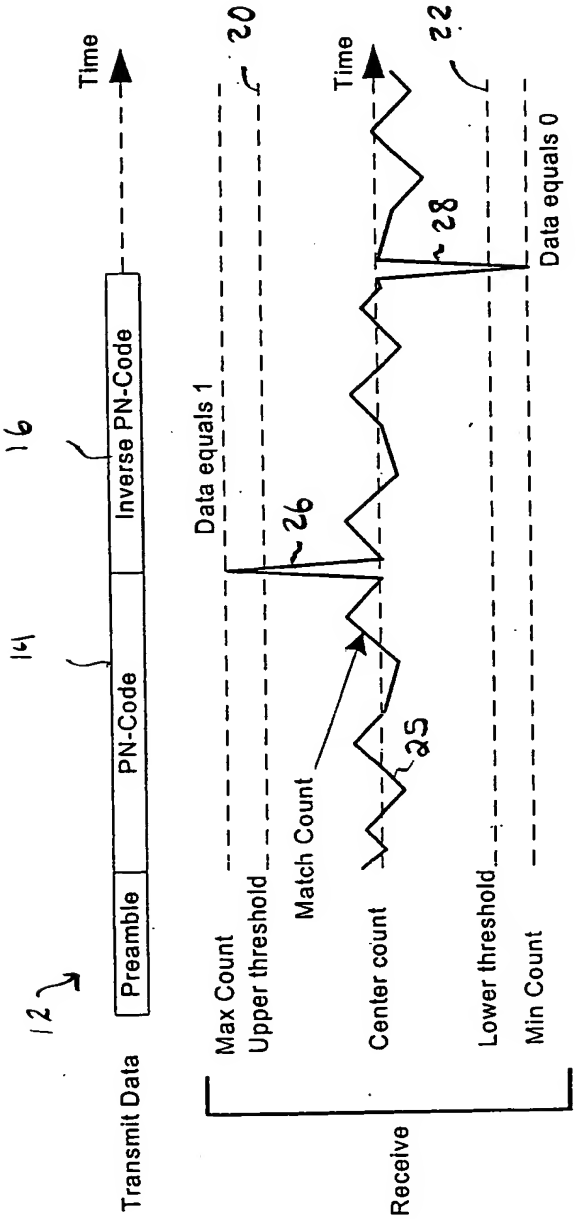


FIG. 1
BACKGROUND

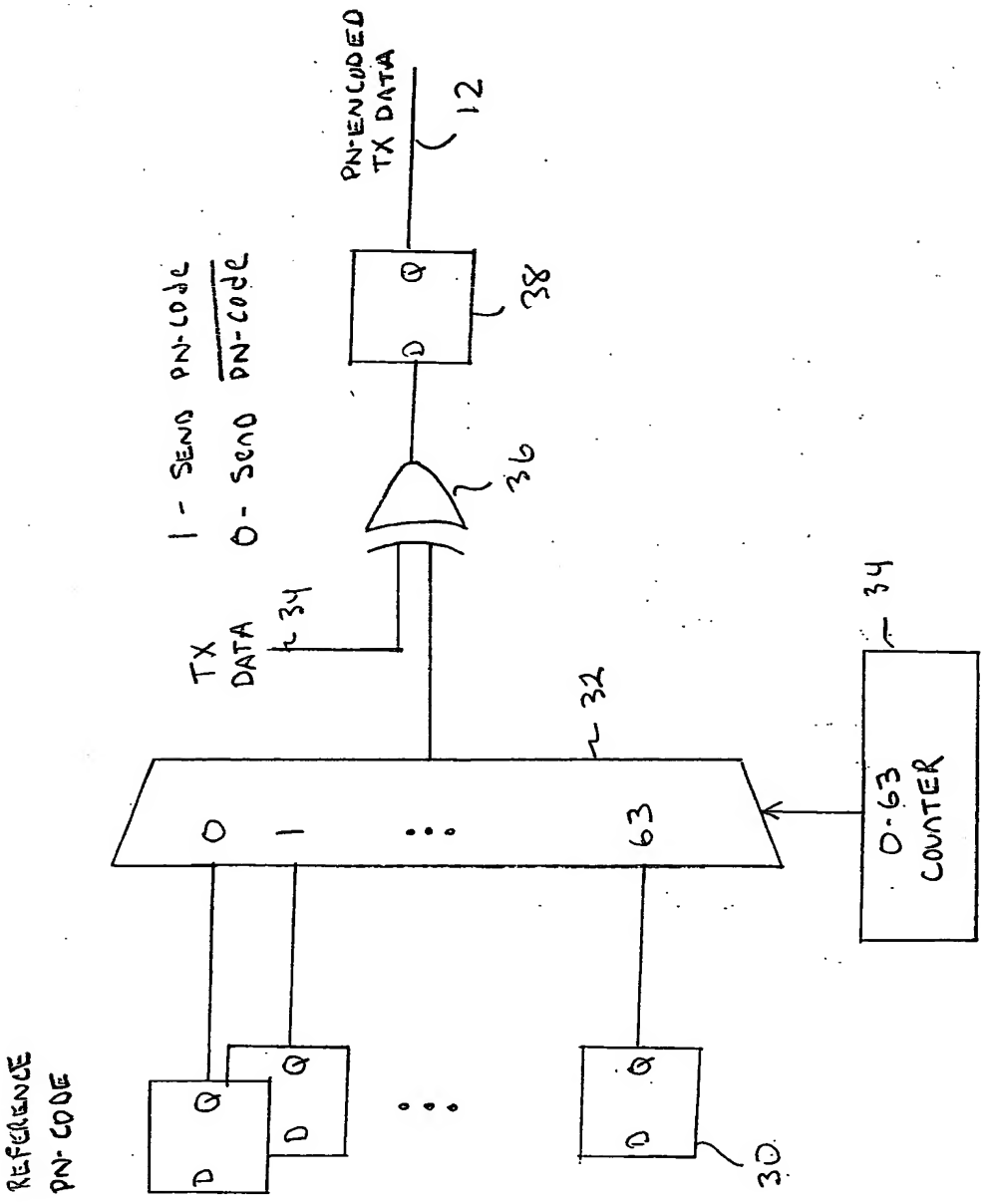


FIG. 2 (BACKGROUND)

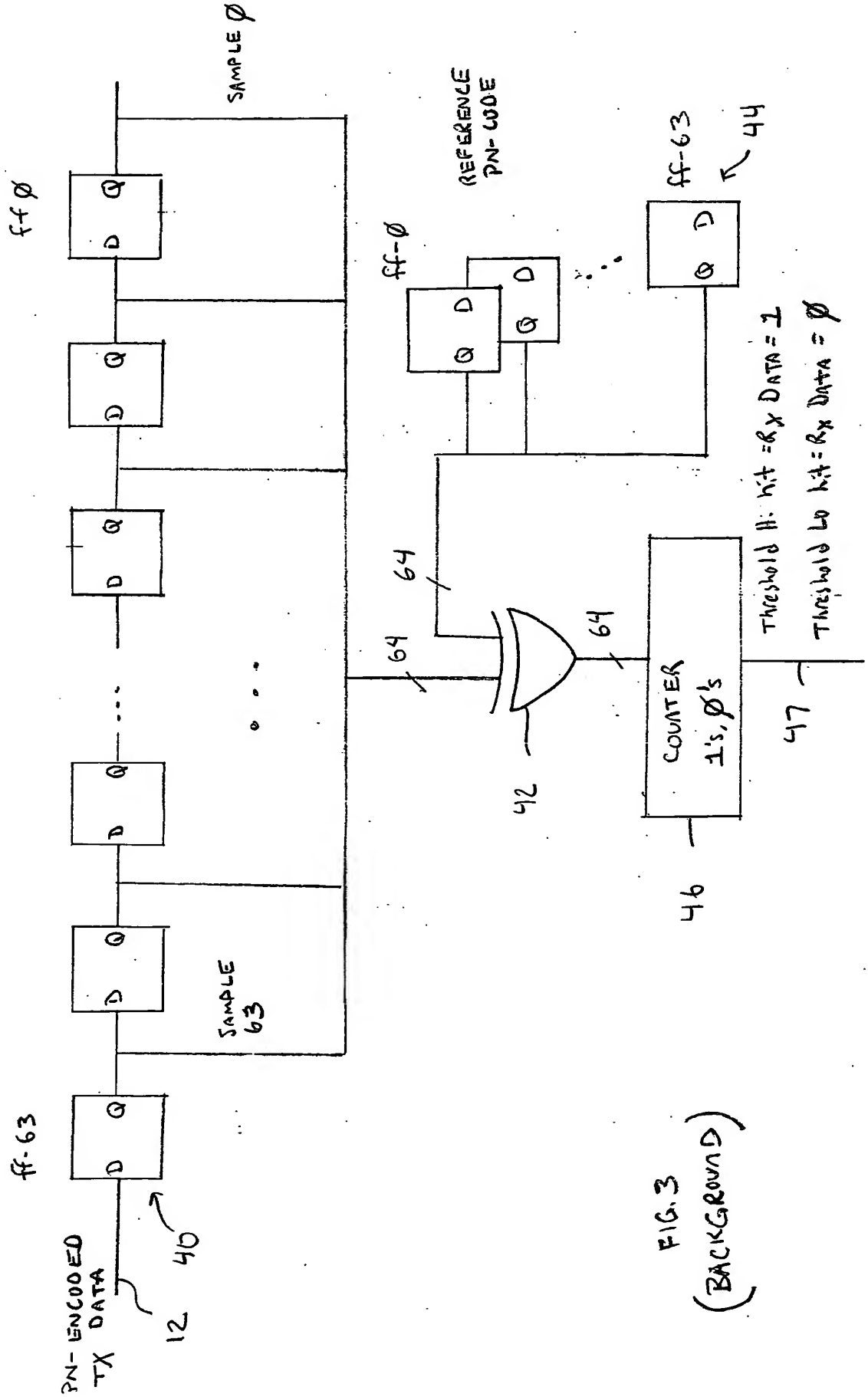


FIG. 3
(BACKGROUND)

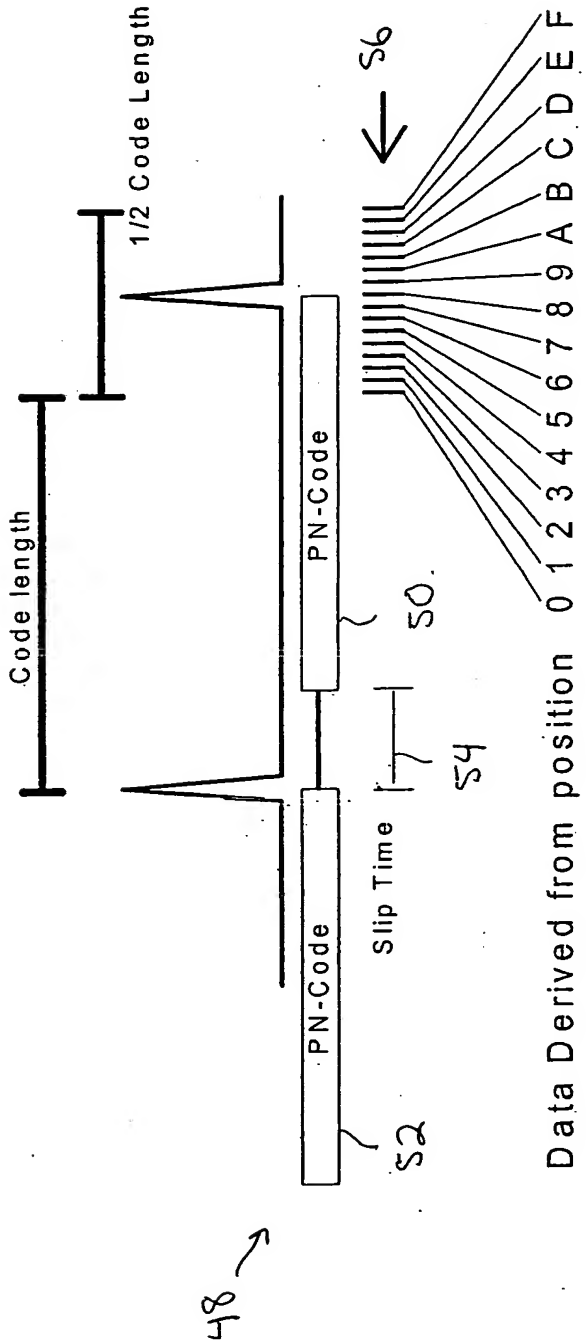

1/2 Code Length
Code length
PN-Code
PN-Code
Slip Time
S6
0 1 2 3 4 5 6 7 8 9 A B C D E F
Data Derived from position
50
54
52
48

FIG. 4

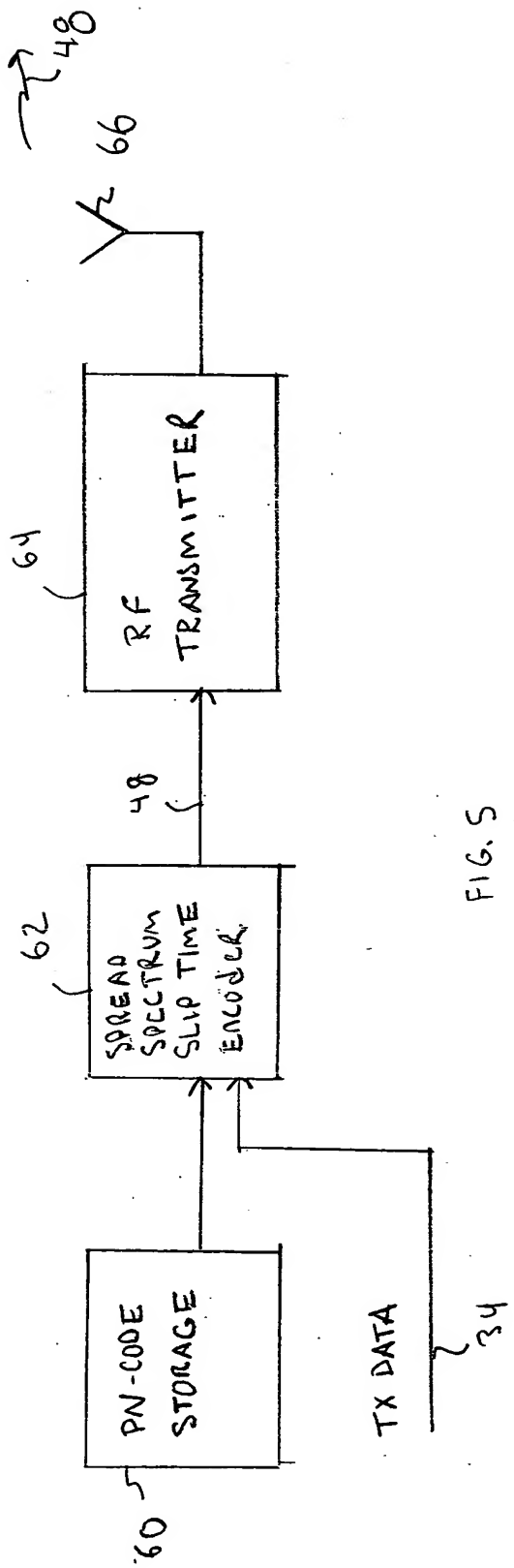

48
66
64
RF TRANSMITTER
48
62
SPREAD SPECTRUM SLIP TIME ENCODER
60
PN-CODE STORAGE
TX DATA
34

FIG. 5

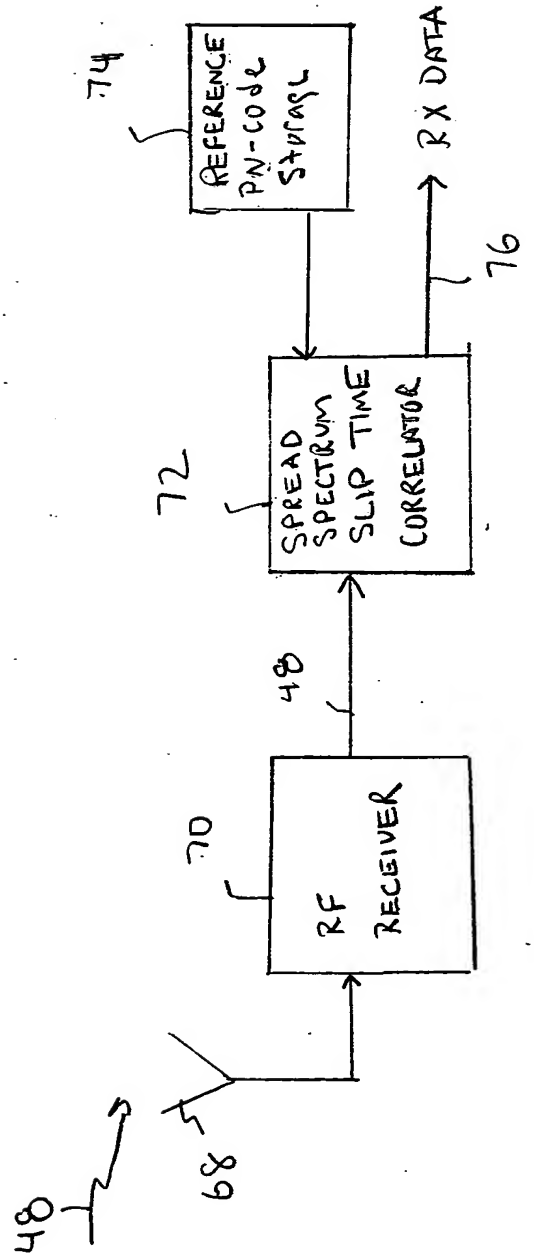
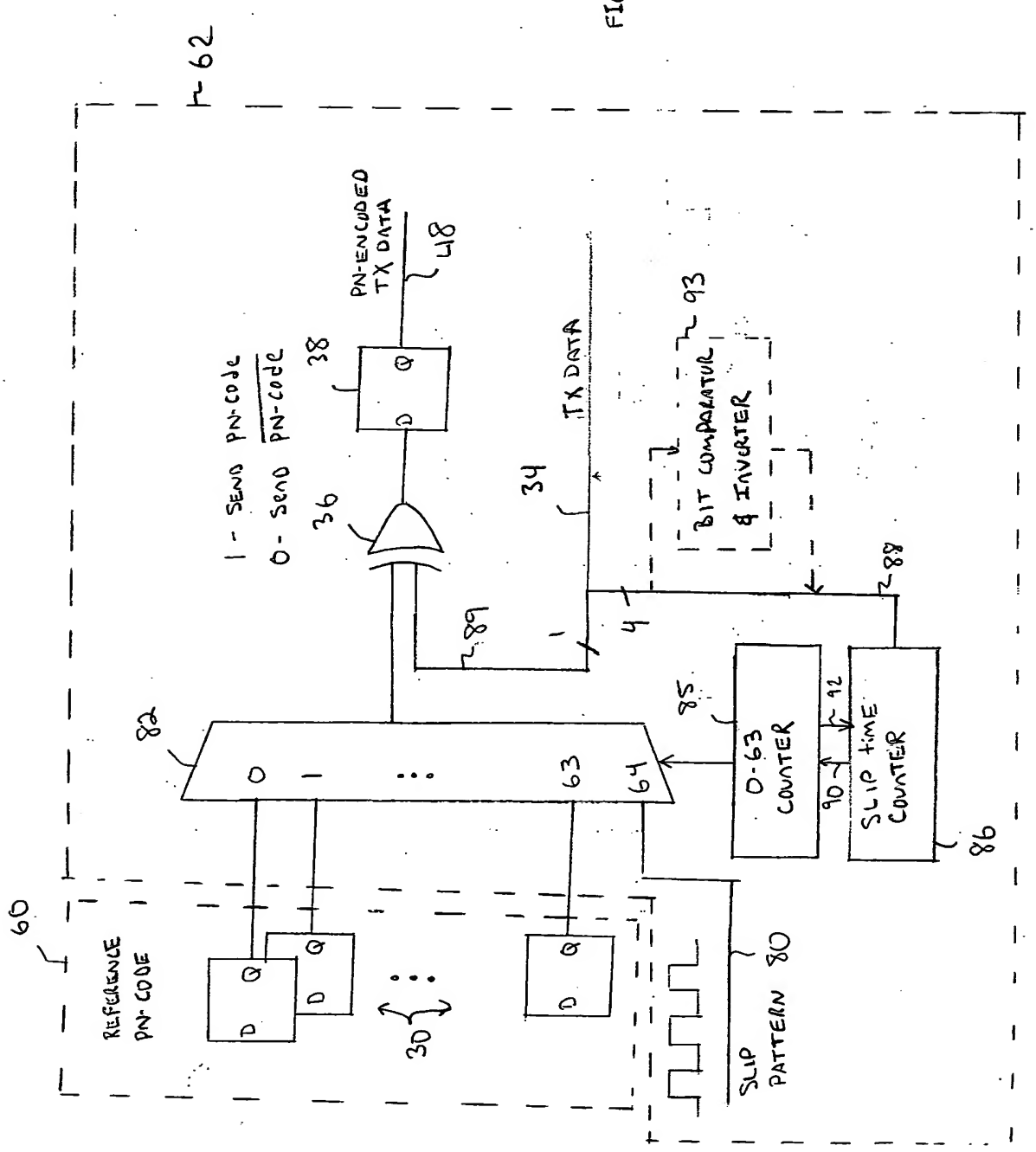

74
REFERENCE PN-CODE STORAGE
RX DATA
76
72
SPREAD SPECTRUM SLIP TIME CORRELATOR
48
70
RF RECEIVER
68
48

FIG. 6

FIG. 7


62
PN-ENCODED TX DATA
48
38
1 - SEND PN-CODE
0 - SEND PN-CODE
36
34
TX DATA
93
BIT COMPARATOR & INVERTER
88
89
4
1
82
0
1
63
64
85
0-63 COUNTER
92
90
SLIP time COUNTER
86
60
REFERENCE PN-CODE
30
SLIP PATTERN 80

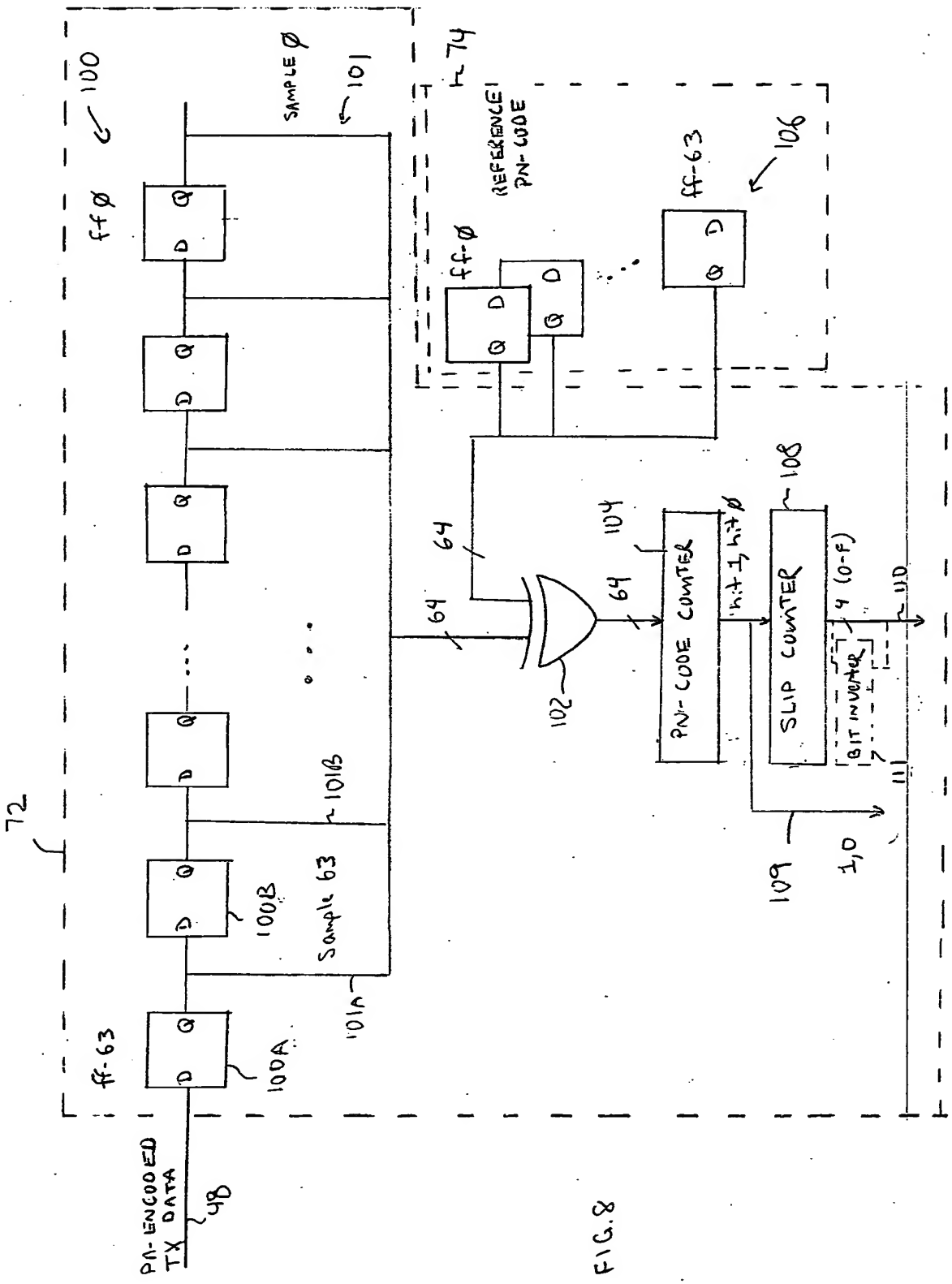
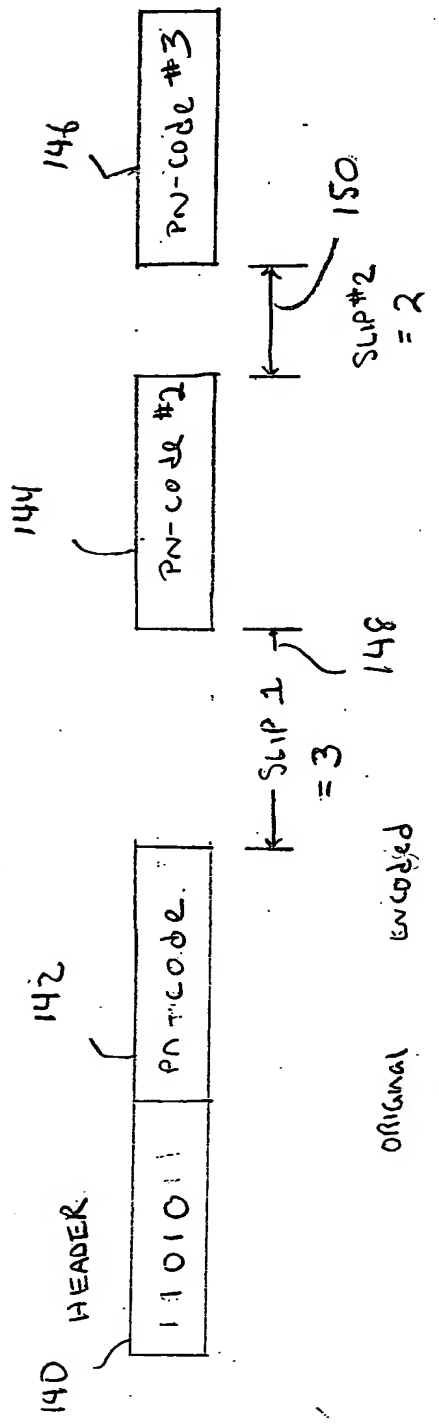

72
100
FF-Ø
FF-63
100A
100B
SAMPLE Ø
101
101A
Sample 63
74
REFERENCE PN-CODE
FF-Ø
FF-63
106
64
64
64
102
104
PN-CODE COUNTER
6 bits
108
SLIP COUNTER
4 (0-F)
BIT INVERTER
UD
109
1,0
PN-ENCODED TX DATA
48

FIG. 8



ORIGINAL ENCODED

DATA VALUE = 1100 = 0011
SLIP #1 (12) (3)

DATA VALUE = 1101 = 0010
SLIP #2 (13) (2)

FIG. 9

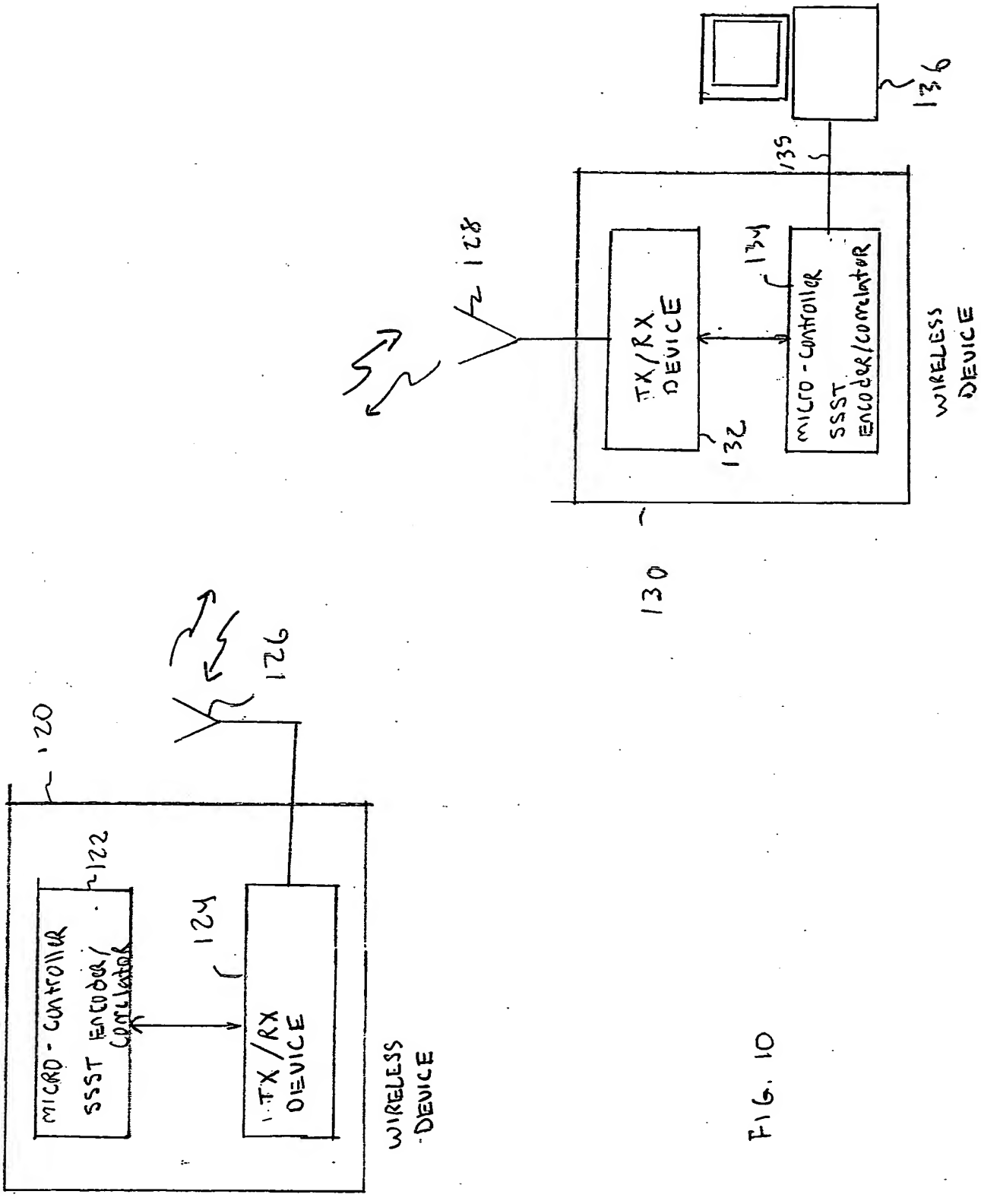

136
135
128
134
TX/RX DEVICE
MICRO - CONTROLLER SSST ENCODER/CORRELATOR
132
WIRELESS DEVICE
130
126
120
122
124
MICRO - CONTROLLER SSST ENCODER/CORRELATOR
TX/RX DEVICE
WIRELESS DEVICE

FIG. 10